

pNFS State of the Union Update HECFSIO – August 10, 2011

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NFSv4.1 – OpenSource Status

- Two OpenSource Implementations
 - OpenSolaris and Linux (file, osd and block)
- OpenSolaris Client and Server
 - Support only file-based layout
 - S
 - Support for multi-device striping already present (NFSv4.1 + pNFS)
 - “Simple Policy Engine” for policy-driven layouts also in the gate
- Linux Client and Server
 - Support files (NFSv4.1)
 - Support in progress blocks (SCSI), objects (OSD T10)
 - Cli
 - e
 - nt consists of generic pNFS client and “plug ins” for “layout drivers

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indows NFSv4.1/pNFS file layout Client from CITI - **NEW**

Timeline after RFC publication

- 2010 – RFC published
- 2010 – EMC Celerra NFSv4.1/pNFS block server support – Released (Q3 '10)
- 2011 – Fedora 15 includes pNFS server/client gits and rpms (did you try it yet?)
- 2011 – pNFS all layouts upstream in Linux 3.1 kernel last week – **New**
- 2011 – SUSE planning to include pNFS client in SLES 11 – **New**
- 2011 – RedHat plans to include pNFS in RHEL 6.2/6.3 – **New**

Protocol status

- Additional functions added to 4.1:
 - FedFS – protocol RFC ready
- What would you like to see in NFSv4.2 additional to what is proposed:
 - Sparse files
 - Access Permissions
 - Labeled NFS + RPCSEC-GSSv3
 - Copy Server Side